

REMARKS

Claims 1-28 are pending in the present application. In the Office Action mailed September 9, 2005, the Examiner rejected claims 18-22 under 35 U.S.C. §112, second paragraph as vague. The Examiner next rejected claims 18-23 and 25-27 under 35 U.S.C. §103(a) as being unpatentable over various interpretations of the disclosed prior art in the instant specification. Applicant appreciates the express indication of allowability of claims 1-17. Furthermore, as there are no outstanding rejections of claims 24 and 28, Applicant assumes these claims include allowable subject matter and are in condition for allowance. If that is not correct, the next action should be non-final.

The Examiner rejected claims 18-22 under 35 U.S.C. §112, second paragraph stating that “claim 18 defines a shielding cup to provide a temperature indicative of a consumable” and that “this limitations [sic] vague in that it is not clear how a cup can be constructed to provide temperature indication.” Applicant has amended claim 18 to clarify that which is called for therein. Claim 18 calls for, in part, a shielding cup constructed with a temperature sensor wherein the temperature sensor is configured to indicate an operating temperature of a plasma torch. Accordingly, Applicant believes that claims 18-22 are in compliance with 35 U.S.C. §112, second paragraph and requests that the rejection thereto be withdrawn.

The Examiner next rejected claims 18-22 under 35 U.S.C. §103(a) as being unpatentable over the present Specification stating that “Applicant should be aware that torch nozzles and the like can sometimes overheat and begin to heat up until a temperature is reached that one of ordinary skill in welding or cutting would recognize” and that “[a]t this point the worker would shut down the operation.” The Examiner further states that “[t]ypically if the nozzle starts to glow (turn red or orange) this is indicative of misuse and can result in permanent damage to the nozzle or electrode.” Applicant does not necessarily disagree that one of ordinary skill in the art would appreciate that when a plasma torch consumable set glows red or orange, typically, misuse has occurred. As amended, claim 18 calls for, in part, a plasma torch consumable kit having a shielding cup constructed with a temperature sensor. Claim 18 further defines that the temperature sensor is configured to indicate an operating temperature of a plasma torch. There is no such plasma torch disclosed or suggested in the art of record. Claim 18 specifies that the thermal indicator is selected to indicate an in-use temperature of the shielding cup to provide an indication of a consumable temperature condition to prevent overheating. As noted by the Examiner, once the plasma torch consumable assembly glows red or orange, the misuse has already occurred. That is, once the “indication” recited by the Examiner occurs, one of ordinary

skill in the art would appreciate that the consumable set has already been overheated. The “indication” applied by the Examiner to the pending claims is incapable of preventing overheating of the consumable assembly as the “indication” – i.e. the set glowing—is evidence that overheating has already occurred. Accordingly, Applicant believes that which is called for in claim 18 is not taught or suggested by the interpretation applied by the Examiner. As such, Applicant believes claims 18-22 are patentably distinct over the art of record.

The Examiner next rejected claims 23 and 25-27 under 35 U.S.C. §103(a) under an alternate interpretation of a plasma torch assembly stating that “[w]hen a shield cup is produced it is common to produce such a component to operate safely in a particular current range” and that “[o]peration in a higher range would lead to erosion or destruction of the component.” Applicant does not necessarily disagree that a person of ordinary skill in the art would appreciate that operating a consumable assembly of a plasma torch beyond a rated capacity of the consumable assembly would most likely detrimentally effect operation and performance of the plasma torch consumable assembly. The Examiner further states that “[s]uch current range obviously indirectly indicates a particular temperature over which damage would occur” and “a shielding cup manufactured as such would obviously be labeled for the customer and this would be the indication set forth in claim 23.” Applicant has amended claim 23 to clarify that called for therein.

Claim 23 calls for, in part, a method of manufacturing a plasma torch consumable that includes attaching a thermal indicator that is selected to indicate an in-use temperature of the shielding cup to the shielding cup. The Examiner’s interpretation of the labeling of the constituent parts of a consumable assembly does not teach or suggest that which is claimed. Specifically, the art of record does not teach or suggest a thermal indicator that is attached to a shielding cup of a plasma torch assembly as called for in claim 23. Furthermore, the Examiner’s interpretation of a labeled part does not perform the steps of claim 23. That is, assuming arguendo that a part is stamped with an identifier, i.e. a maximum current, or more likely, a container or packaging having a part number, that part number does not indicate an operating temperature of the shielding cup as claimed. Regardless of the temperature of the labeled element, the label always indicates the same “labeled” value and is incapable of indicating an operating temperature of the shielding cup as claimed. Simply, the “indicator” or the label of the part, only indicates the identification of the specific part and does not change or indicate any in-use or operating parameter of the torch. When the torch is not operated, when the torch is operated properly, and when the torch is operated improperly thereby overheating, the “indicator”

does not change and cannot indicate an operating temperature of the shielding cup as called for in claim 23. As such, that which is called for in claim 23 is not shown, disclosed, or suggested in the art of record. Accordingly, Applicant believes claims 23, and the claims that depend therefrom, are patentably distinct over the art of record.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-28.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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